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ABSTRACT

A computer program designed to assist a psychology department in recordkeeping and providing information to the American Psychological Association is presented. Descriptive information about the computer program is also included. The program employs the Statistical Analysis System to access a database of demographic data for students entering the psychology graduate program. The program generates tables of means and standard deviations and/or horizontal and vertical bar charts for the student variables. In addition to facilitating analysis of student data, comparisons can be made within and across subspecialties for first-year students, all students, and students who do not finish their programs of study. Additional options include the time required to finish a program of study and a frequency distribution of careers followed by students who obtain degrees. The information system provides a framework for maintaining student data needed for different purposes, and the computer program can be modified to accommodate subspecialties. Relevant student variables are listed, including name, sex, race, undergraduate grade point average, graduate record exam, dates of admittance and graduation, major, and full- or part-time status. (SW)

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ED247859

Developing an Information System for Graduate Student Demographic Data

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Bowling Green State University

Presented at the annual meeting of the

Midwestern Psychological Association

Chicago, May 1984

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Problem

Annually the American Psychological Association (APA) requests statistical reports from graduate programs concerning their first year students. While the actual calculations are simple, the organization and analysis of the data can be demanding in terms of time. The purpose of this study was to develop a computer program employing the Statistical Analysis System (SAS), which would access a data base of demographic data for all of the students who had entered a graduate program. Thus, analysis of student data would be facilitated and comparisons between and within classes of students, across and between subspecialties could be made.

Procedure

This computer program was designed to facilitate a psychology department's recordkeeping and reporting of APA required information. Name, address, citizenship, enrollment status, careers followed by those students who obtained degrees, program subspecialty, race, sex, social security number, funding level, year of entry of degree program, year of completion of degree program; GRE-V, GRE-Q, GRE-A, GRE-V+Q, GRE-Adv, and TOEFL (Test of English as a Foreign Language) scores, and Overall, Psych and Last Two Years GPAs comprised the data base. The program generated tables of means and standard deviations and/or horizontal and vertical bar charts for the variables in question. These

descriptive statistics were determined within and across subspecialties for first year students, all students, and students who did not finish their program of study. Additional options included: the time required to finish a program of study and a frequency distribution of careers followed by those students who obtained degrees.

Results

The SAS computer program yielded descriptive statistics in the form of tables and/or frequency distribution charts for first year students, all students, and students who did not finish their program of study both across and within the subspecialties of a psychology program.

Conclusions

The SAS computer program for analyzing a data base of demographic information for all students entering a psychology program greatly facilitated the calculation of descriptive statistics requested annually by the APA. The SAS program allowed for the comparison of student data both within and across subspecialties, and within and across years of a psychology program's existence. Additionally, the information system provided an organizational framework for maintaining student data which may be analyzed for a number of different purposes. The program may be easily modified to accommodate a number of psychology programs with several subspecialties.

Variables of Concern

name
address
social security number
sex
citizenship
race
undergraduate gpa
  1. overall
  2. last two years
  3. psychology
graduate record exam
  1. verbal
  2. quantitative
  3. analytic
  4. grev + greq
  5. advanced
toefl
date admitted
date graduate
program of study
fulltime/parttime status
time taken to finish
career paths of graduates

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  TITLE GRADUATE STUDENT DEMOGRAPHIC DATA MANAGEMENT SYSTEM;
  TITLE2 PROGRAMMED BY KAREN R. MIDKIFF, BOWLING GREEN STATE UNIVERSITY 1984;
DATA GRADSTD;
  INPUT NAME $ 1-38 ADDRESS $ 40-80 #2 SSN 1-9 SEX $ 11 RACE 13 CTZSHP 15
  UGGPA 17-20 UGGPAL2 22-25 UGGPAPSY 27-30 GREV 32-34 GREQ 36-38 GREA 40-42
  GREADV 44-46 TOEFL 48-50 DATEADMT 52-55 FULLPART $ 57 STATUS 59 PROGRAM 61
  DATEGRAD 63-66 CARPATH 68;
  TOTAL=GREV + GREQ;
  CARDS;
data
"
"
"
"
"
PROC MEANS;
  TITLE4 ENTIRE STUDENT POOL - CENTRAL TENDENCY MEASURES;
  VAR GREV GREQ GREA TOTAL GREADV UGGPA UGGPAL2 UGGPAPSY TOEFL;
PROC SORT;
  BY SEX;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - FREQUENCY DISTRIBUTION FOR SEX;
  VBAR SEX;
PROC SORT;
  BY CTZSHP;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - FREQUENCY DISTRIBUTION FOR CITIZENSHIP;
  TITLE5 1=U.S.;
  TITLE6 2=OTHER;
  VBAR CTZSHP/MIDPOINTS=1 2;
PROC SORT;
  BY RACE;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - FREQUENCY DISTRIBUTION FOR RACE;
  TITLE5 1=CAUC;
  TITLE6 2=SPANISH-AMERICAN;
  TITLE7 3=BLACK;
  TITLE8 4=ASIAN;
  TITLE9 5=OTHER;
  VBAR RACE/MIDPOINTS=1 2 3 4 5;
PROC SORT;
  BY STATUS;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - FREQUENCY DISTRIBUTION FOR STATUS;
  TITLE5 1=FUNDED;
  TITLE6 2=NOT FUNDED;
  TITLE7 3=NO FINISH;
  VBAR STATUS/MIDPOINTS=1 2 3;
PROC SORT;
  BY FULLPART;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - DISTRIBUTION FOR FULLTIME/PARTTIME;
  HBAR FULLPART;
PROC SORT;
  BY PROGRAM;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - FREQUENCY DISTRIBUTION FOR PROGRAM;
  TITLE5 1=SUBSPECIALTY 1;
  TITLE6 2=SUBSPECIALTY 2;
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  HBAR PROGRAM/MIDPOINTS= 1 2;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - TOEFL SCORE DISTRIBUTION;
  HBAR TOEFL/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - OVERALL UNDERGRAD GPA DISTRIBUTION;
  VBAR UGGPA/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - UNDERGRAD GPA FOR LAST TWO YEARS;
  VBAR UGGPAL2/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - UNDERGRAD GPA IN PSYCH DISTRIBUTION;
  VBAR UGGPAPSY/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - GREV DISTRIBUTION;
  VBAR GREV/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - GREQ DISTRIBUTION;
  VBAR GREQ/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - GREA DISTRIBUTION;
  VBAR GREA/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - GREV + GREQ DISTRIBUTION;
  VBAR TOTAL/MIDPOINTS=400 800 1000 1200 1600;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - GREADV DISTRIBUTION;
  VBAR GREADV/MIDPOINTS=200 400 500 600 800;
DATA SUBSPEC1;
  SET GRADSTD;
  IF PROGRAM EQ '1';
PROC MEANS;
  TITLE4 SUBSPECIALTY 1 - CENTRAL TENDENCY MEASURES;
  VAR GREV GREQ GREA GREADV TOTAL UGGPA UGGPAL2 UGGPAPSY TOEFL;
PROC SORT;
  BY SEX;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - FREQUENCY DISTRIBUTION FOR SEX;
  VBAR SEX;
PROC SORT;
  BY CTZSHP;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - FREQUENCY DISTRIBUTION FOR CITIZENSHIP;
  TITLE5 1=U.S.;
  TITLE6 2=OTHER;
  VBAR CTZSHP/MIDPOINTS= 1 2;
PROC SORT;
  BY RACE;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - FREQUENCY DISTRIBUTION FOR RACE;
  TITLE5 1=CAUC;
  TITLE6 2=SPANISH-AMERICAN;
  TITLE7 3=BLACK;
  TITLE8 4=ASIAN;
  TITLE9 5=OTHER;
  VBAR RACE/MIDPOINTS=1 2 3 4 5;
PROC SORT;
  BY STATUS;
PROC CHART;
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  TITLE4 SUBSPECIALTY 1 - FREQUENCY DISTRIBUTION FOR STATUS;
  TITLE5 1=FUNDED;
  TITLE6 2=NOT FUNDED;
  TITLE7 3=NO FINISH;
  HBAR STATUS/MIDPOINTS=1 2 3;
PROC SORT;
  BY FULLPART;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - DISTRIBUTION FOR FULLTIME AND PARTTIME;
  HBAR FULLPART;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - TOEFL SCORE DISTRIBUTION;
  HBAR TOEFL/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - OVERALL UNDERGRAD GPA DISTRIBUTION;
  VBAR UGGPA/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - UNDERGRAD GPA FOR LAST TWO YEARS DISTRIBUTION;
  VBAR UGGPAL2/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - UNDERGRAD GPA IN PSYCH DISTRIBUTION;
  VBAR UGGPAPSY/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - GREV DISTRIBUTION;
  VBAR GREV/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - GREQ DISTRIBUTION;
  VBAR GREQ/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - GREA DISTRIBUTION;
  VBAR GREA/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - GREV + GREQ DISTRIBUTION;
  VBAR TOTAL/MIDPOINTS=400 800 1000 1200 1600;
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - GREADV DISTRIBUTION;
  VBAR GREADV/MIDPOINTS=200 400 500 600 800;
DATA SUBSPEC2;
  SET GRADSTD;
  IF PROGRAM EQ '2';
PROC MEANS;
  TITLE4 SUBSPECIALTY 2 - CENTRAL TENDENCY MEASURES;
  VAR GREV GREQ GREA TOTAL GREADV UGGPA UGGPAL2 UGGPAPSY TOEFL;
PROC SORT;
  BY SEX;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - FREQUENCY DISTRIBUTION FOR SEX;
  VBAR SEX;
PROC SORT;
  BY CTZSHP;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - FREQUENCY DISTRIBUTION FOR CITIZENSHIP;
  TITLE5 1=U.S.;
  TITLE6 2=OTHER;
  VBAR CTZSHP/MIDPOINTS=1 2;
PROC SORT;
  BY RACE;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - FREQUENCY DISTRIBUTION FOR RACE;
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  TITLE5 1=CAUC;
  TITLE6 2=SPANISH-AMERICAN;
  TITLE7 3=BLACK;
  TITLE8 4=ASIAN;
  TITLE9 5=OTHER;
  VBAR RACE/MIDPOINTS=1 2 3 4 5;
PROC SORT;
  BY STATUS;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - FREQUENCY DISTRIBUTION FOR STATUS;
  TITLE5 1=FUNDED;
  TITLE6 2=NOT FUNDED;
  TITLE7 3=NO FINISH;
  HBAR STATUS/MIDPOINTS=1 2 3;
PROC SORT;
  BY FULLPART;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - DISTRIBUTION FOR FULLTIME/PARTTIME;
  HBAR FULLPART;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - TOEFL SCORE DISTRIBUTION;
  HBAR TOEFL/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - OVERALL UNDERGRAD GPA DISTRIBUTION;
  VBAR UGGPA/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - UNDERGRAD GPA FOR LAST TWO YEARS;
  VBAR UGGPAL2/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - UNDERGRAD GPA IN PSYCH DISTRIBUTION;
  VBAR UGGPAPSY/MIDPOINTS= 2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - GREV DISTRIBUTION;
  VBAR GREV/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - GREQ DISTRIBUTION;
  VBAR GREQ/MIDPOINTS= 200 400 500 600 800;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - GREA DISTRIBUTION;
  VBAR GREA/MIDPOINTS= 200 400 500 600 800;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - GREV + GREQ DISTRIBUTION;
  VBAR TOTAL/MIDPOINTS= 400 800 1000 1200 1600;
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - GREADV DISTRIBUTION;
  VBAR GREADV/MIDPOINTS=200 400 500 600 800;
DATA SUB1CUR;
  SET SUBSPEC1;
  IF DATEADMT EQ '1983' AND STATUS LE '2';
PROC MEANS;
  TITLE4 CURRENT SUBSPEC 1 - CENTRAL TENDENCY MEASURES;
  VAR GREV GREQ GREA TOTAL GREADV UGGPA UGGPAL2 UGGPAPSY TOEFL;
PROC SORT;
  BY SEX;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - FREQUENCY DISTRIBUTION FOR SEX;
  VBAR SEX;
PROC SORT;
  BY CTZSHP;
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PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - FREQUENCY DISTRIBUTION FOR CITIZENSHIP;
  TITLE5 1=U.S.;
  TITLE6 2=OTHER;
  VBAR CTZSHP/MIDPOINTS=1 2;
PROC SORT;
  BY RACE;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - FREQUENCY DISTRIBUTION FOR RACE;
  TITLE5 1=CAUC;
  TITLE6 2=SPANISH-AMERICAN;
  TITLE7 3=BLACK;
  TITLE8 4=ASIAN;
  TITLE9 5=OTHER;
  VBAR RACE/MIDPOINTS=1 2 3 4 5;
PROC SORT;
  BY STATUS;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - FREQUENCY DISTRIBUTION FOR STATUS;
  TITLE5 1=FUNDED;
  TITLE6 2=NOT FUNDED;
  HBAR STATUS/MIDPOINTS=1 2;
PROC SORT;
  BY FULLPART;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - DISTRIBUTION FOR FULLTIME/PARTTIME;
  HBAR FULLPART;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - TOEFL SCORE DISTRIBUTION;
  HBAR TOEFL/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - OVERALL UNDERGRAD GPA DISTRIBUTION;
  VBAR UGGPA/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - UNDERGRAD GPA LAST TWO YEARS;
  VBAR UGGPAL2/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - UNDERGRAD GPA IN PSYCH DISTRIBUTION;
  VBAR UGGPAPSY/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - GREV DISTRIBUTION;
  VBAR GREV/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - GREQ DISTRIBUTION;
  VBAR GREQ/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - GREA DISTRIBUTION;
  VBAR GREA/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - GREV + GREQ DISTRIBUTION;
  VBAR TOTAL/MIDPOINTS=400 800 1000 1200 1600;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 1 - GREADV DISTRIBUTION;
  VBAR GREADV/MIDPOINTS=200 400 500 600 800;
DATA SUB2CUR;
  SET SUBSPEC2;
  IF DATEADMT EQ '1983' AND STATUS LE '2';
PROC MEANS;
  TITLE4 CURRENT SUBSPEC 2 - CENTRAL TENDENCY MEASURES;
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  VAR GREV GREQ GREA TOTAL GREADV UGGPA UGGPAL2 UGGPAPSY TOEFL;
PROC SORT;
  BY SEX;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - FREQUENCY DISTRIBUTION FOR SEX;
  VBAR SEX;
PROC SORT;
  BY CTZSHP;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - FREQUENCY DISTRIBUTION FOR CITIZENSHIP;
  TITLE5 1=U.S.;
  TITLE6 2=OTHER;
  VBAR CTZSHP/MIDPOINTS=1 2;
PROC SORT;
  BY RACE;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - FREQUENCY DISTRIBUTION FOR RACE;
  TITLE5 1=CAUC;
  TITLE6 2=SPANISH-AMERICAN;
  TITLE7 3=BLACK;
  TITLE8 4=ASIAN;
  TITLE9 5=OTHER;
  VBAR RACE/MIDPOINTS=1 2 3 4 5;
PROC SORT;
  BY STATUS;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - FREQUENCY DISTRIBUTION FOR STATUS;
  TITLE5 1=FUNDED;
  TITLE6 2=NOT FUNDED;
  HBAR STATUS/MIDPOINTS=1 2;
PROC SORT;
  BY FULLPART;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - DISTRIBUTION FOR FULLTIME/PARTTIME;
  HBAR FULLPART;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - TOEFL SCORE DISTRIBUTION;
  HBAR TOEFL/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - OVERALL UNDERGRAD GPA DISTRIBUTION;
  VBAR UGGPA/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - UNDERGRAD GPA FOR LAST TWO YEARS;
  VBAR UGGPAL2/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - UNDERGRAD GPA IN PSYCH DISTRIBUTION;
  VBAR UGGPAPSY/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - GREV DISTRIBUTION;
  VBAR GREV/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - GREQ DISTRIBUTION;
  VBAR GREQ/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - GREA DISTRIBUTION;
  VBAR GREA/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - GREV + GREQ DISTRIBUTION;
  VBAR TOTAL/MIDPOINTS=400 800 1000 1200 1600;
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PROC CHART;
  TITLE4 CURRENT SUBSPEC 2 - GREADV DISTRIBUTION;
  VBAR GREADV/MIDPOINTS=200 400 500 600 800;
DATA NOFINISH;
  SET GRADSTD;
  IF STATUS EQ '3';
PROC MEANS;
  TITLE4 NOFINISH STUDENTS - CENTRAL TENDENCY MEASURES;
  VAR GREV GREQ GREA TOTAL GREADV UGGPA UGGPAL2 UGGPAPSY TOEFL;
PROC SORT;
  BY SEX;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - FREQUENCY DISTRIBUTION FOR SEX;
  VBAR SEX;
PROC SORT;
  BY CTZSHP;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - FREQUENCY DISTRIBUTION FOR CITIZENSHIP;
  TITLE5 1=U.S.;
  TITLE6 2=OTHER;
  VBAR CTZSHP/MIDPOINTS=1 2;
PROC SORT;
  BY RACE;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - FREQUENCY DISTRIBUTION FOR RACE;
  TITLE5 1=CAUC;
  TITLE6 2=SPANISH-AMERICAN;
  TITLE7 3=BLACK;
  TITLE8 4=ASIAN;
  TITLE9 5=OTHER;
  VBAR RACE/MIDPOINTS=1 2 3 4 5;
PROC SORT;
  BY FULLPART;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - DISTRIBUTION FOR FULLTIME/PARTTIME;
  HBAR FULLPART;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - TOEFL SCORE DISTRIBUTION;
  HBAR TOEFL/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - OVERALL UNDERGRAD GPA DISTRIBUTION;
  VBAR UGGPA/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - UNDERGRAD GPA FOR LAST TWO YEARS;
  VBAR UGGPAL2/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - UNDERGRAD GPA IN PSYCH DISTRIBUTION;
  VBAR UGGPAPSY/MIDPOINTS=2.0 2.5 3.0 3.5 4.0;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - GREV DISTRIBUTION;
  VBAR GREV/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - GREQ DISTRIBUTION;
  VBAR GREQ/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - GREA DISTRIBUTION;
  VBAR GREA/MIDPOINTS=200 400 500 600 800;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - GREV + GREQ DISTRIBUTION;
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. VBAR TOTAL/MIDPOINTS=400 800 1000 1200 1600;
PROC CHART;
  TITLE4 NOFINISH STUDENTS - GREADV DISTRIBUTION;
  VBAR GREADV/MIDPOINTS=200 400 500 600 800;
DATA FINISH;
  SET GRADSTD;
IF DATEGRAD EQ '.' THEN DELETE;
TIMFIN=DATEGRAD - DATEADMT;
PROC SORT;
  BY CARPATH;
PROC CHART;
  TITLE4 GRADUATE CAREER PATHS;
  TITLE5 1=M.A. PROGRAM;
  TITLE6 2=PH.D. PROGRAM;
  TITLE7 3=ACADEMIC SECTOR JOB;
  TITLE8 4=PRIVATE SECTOR JOB;
  TITLE9 5=UNKNOWN;
  HBAR CARPATH/MIDPOINTS=1 2 3 4 5;
PROC CHART;
  TITLE4 ENTIRE STUDENT POOL - TIME (IN YEARS) TO FINISH PROGRAM;
  HBAR TIMFIN/MIDPOINTS=1 2 3 4 5 6 7;
DATA SUB1FIN;
  SET FINISH;
  IF PROGRAM EQ '1';
PROC CHART;
  TITLE4 SUBSPECIALTY 1 - TIME (IN YEARS) TO FINISH PROGRAM;
  HBAR TIMFIN/MIDPOINTS=1 2 3 4 5 6 7;
DATA SUB2FIN;
  SET FINISH;
  IF PROGRAM EQ '2';
PROC CHART;
  TITLE4 SUBSPECIALTY 2 - TIME (IN YEARS) TO FINISH PROGRAM;
  HBAR TIMFIN/MIDPOINTS=1 2 3 4 5 6 7;
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